



Figure 2 Mixed intradermal inflammatory infiltrate associated with heavy neutrophilic infiltration of a hair follicle. Haematoxylin and eosin, original magnification $\times 15$.

acne and suppurative hidradenitis) and PAPASH (pyogenic arthritis, pyoderma gangrenosum, acne and suppurative hidradenitis). However, PG triggered by cutaneous leishmaniasis has not been reported previously, to our knowledge. It is notable that our patient denied a history of previous ulceration suggestive of PG. We suspect that immunosuppression by adalimumab allowed for the unabated proliferation of leishmania, resulting in pathergy and the subsequent development of PG. It is plausible that the patient's predisposition to developing PG allowed for the first lesion to arise in such an uncommonly affected anatomical site secondary to cutaneous leishmaniasis. In a retrospective review on PG characteristics, localization to the head and neck accounted for only 7.8% of cases.³ This report also corroborates recent work that documented elevated faecal calprotectin levels in patients with HS who did not have inflammatory bowel disease.⁴

In conclusion, patients with HS are at a higher risk of developing PG, which as we have documented, can arise in uncommon anatomical locations, and be triggered by cutaneous leishmaniasis in the setting of TNF- α inhibition.

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The effect of COVID-19-related changes on geographical outcomes in the 2021 dermatology residency match

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Dear Editor,

The COVID-19 pandemic has widely affected medical education, including the US 2020–2021 National Resident Matching Program (NRMP) dermatology application cycle. Although in-person dermatology rotations were permitted at students' school-affiliated home institutions, rotations at other institutions were largely suspended and interviews were conducted virtually.¹ As medical school institutional affiliation and geographical region are important predictors of dermatology match outcomes,² we aimed to determine whether COVID-19-related changes affected either home programme or home geographical region dermatology match rates in 2021 compared with previous years.

This study was considered IRB exempt by Case Western Reserve University. We identified US matched dermatology applicants from the 2020–2021 cycle using publicly available medical school match lists and social networking sites (e.g. dermatology applicant spreadsheet accessed via Reddit). We excluded matched osteopathic medical students and international graduates for 'home region' analysis and applicants without a home programme (per official institutional affiliations) for 'home program' analysis. We compared data from our 2021 cohort ('post-COVID') to combined data from a cohort of applicants from 2007, 2009, 2011, 2014, 2016 and 2018 ('pre-COVID'). These pre-COVID years were selected

Table 1 Applicant match rates of at-home programmes and within home regions from pre- and post-COVID cohorts.

	Year							COVID era		<i>P</i> ^a
	2007	2009	2011	2014	2016	2018	2021	Pre-COVID	Post-COVID	
Matching										
At-home programme, <i>n</i> (%) ^b	88 (32.3)	110 (34.1)	88 (28.6)	117 (31.8)	98 (26.1)	89 (26.7)	137 (38.2)	590 (29.8)	137 (38.2)	< 0.01
Within home region, <i>n</i> (%) ^c	212 (69.5)	226 (64.6)	220 (62.0)	258 (61.1)	250 (59.1)	237 (62.5)	258 (66.2)	1403 (62.8)	258 (66.2)	0.20

^aComparison between pre-COVID (2007, 2009, 2011, 2014, 2016, 2018) and post-COVID (2021) matching at-home programme/within home region using χ^2 test; ^bapplicants who matched at their school-affiliated dermatology residency programme; ^capplicants who matched at any institution within their US region, based on US Census designations.

to align with the historical release of NRMP match reports and to provide a longitudinal snapshot of match data. Multivariable logistic regression was used to determine odds of matching at home programme or within home region for pre- and post-COVID cohorts.

We identified 390 matched allopathic graduates in 2021, 359 of whom attended medical schools with a home dermatology programme. We compared these groups with 2234 matched applicants in the pre-COVID time span.

Pre-COVID, 590 (29.8%) applicants matched at-home programmes, compared with 137 (38.2%) post-COVID applicants ($P = 0.01$). Furthermore, 1403 (62.8%) pre-COVID applicants matched within the home region compared with 258 (66.2%) post-COVID applicants ($P = 0.20$) (Table 1). When we controlled for medical school ranking, post-COVID applicants were more likely [adjusted odds ratio (aOR) = 1.50, 95% CI 1.20–1.90] to match at-home programmes in 2021 compared with pre-COVID years. We found no increased association of matching within the home region post-COVID compared with previous years (aOR = 1.13, 95% CI 0.88–1.45) (Table 2). Post-COVID, applicants from southern schools were more likely to match the at-home programme ($P = 0.006$) and applicants from northeastern schools

were more likely to match within the home region ($P = 0.02$) (Table S1).

COVID-19-related changes may have increased the likelihood of US dermatology applicants matching at-home programmes. Additionally, the likelihood of matching within home region was unchanged compared with previous years, suggesting that the increasingly virtual 2021 cycle did not expand applicants' geographical prospects. Postpandemic changes (e.g. virtual interviews) may reduce costs and increase equity for applicants,³ but may also reduce applicants' likelihood of matching at nonhome programmes and present drawbacks such as interview hoarding⁴ and increased emphasis on medical school ranking.⁵

The limitations of this study include the inability to quantify the influence of any specific COVID-19-related change or to differentiate whether our findings were due to programme or applicant preferences.

Our finding that applicants were more likely to match at-home programmes and not more likely to match out of region due to COVID-19-related changes may be considered by programme directors when implementing future changes to the dermatology residency application process.

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Table 2 Multivariable models of matching at-home programme or within home region among dermatology residency applicants.

Predictor variable	aOR (95%CI)	<i>P</i>
Matching at-home programme		
Post- vs. pre-COVID-19	1.50 (1.20–1.90)	< 0.01
Per 10-point increase in USNWR ranking	0.93 (0.89–0.97)	< 0.01
Matching within home region		
Post- vs. pre-COVID-19	1.13 (0.88–1.45)	0.33
Per 10-point increase in USNWR ranking	1.00 (0.97–1.00)	0.86

aOR, adjusted odds ratio; USNWR, US News and World Report.

^aCorresponding to match year.

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Table S1. Association of medical school region with matching at home programme or within home region, pre- and post-COVID.

Recalcitrant, recurrent aphthous stomatitis treated successfully with tofacitinib

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Dear Editor,

Recurrent aphthous stomatitis (RAS) is a common cause of painful oral ulcer, can be a part of systemic disease such as Behçet syndrome, inflammatory bowel disease, reactive arthritis, coeliac disease, cyclic neutropenia, HIV infection, MAGIC (mouth and genital ulcer with inflamed cartilage) syndrome, PFAPA (periodic fever, aphthous ulcer, pharyngitis, cervical adenitis) syndrome, bullous disorders and vitamin deficiencies (B1, B2, B12, folate).¹ Treatment for RAS includes systemic steroids, immunosuppressive drugs and apremilast^{1,2} and, in refractory cases, etanercept, a tumour necrosis factor (TNF)- α inhibitor.³

A 38-year-old woman presented with a 12-year history of RAS. She had 8–10 lesions every week, which caused excruciating pain and discomfort; each episode lasted about 2 weeks with exacerbations during emotional stress and before her menstrual periods. She reported no association with food or alcohol intake, and there was no history of oral trauma, genital ulcers, red eyes, skin lesions, chronic diarrhoea, weight loss, fever or arthralgia.

On physical examination, she was found to have multiple erosions < 10 mm in size over her hard and soft palates, and a linear ulcer over the dorsum of the tongue and left lateral aspect of the buccal mucosa, surrounded by an erythematous border (Fig. 1a,b). The rest of the physical examination was unremarkable.



Figure 1 (a) Multiple oral aphthae and (b) linear oral aphthae over tongue before treatment with tofacitinib; (c) complete resolution of oral lesions after treatment with tofacitinib.

Laboratory investigations, including full blood count, erythrocyte sedimentation rate, C-reactive protein, blood sugar, lipid profile, liver function, renal function, serum thyroid-stimulating hormone, vitamins (B1, B2, B6, B12, folate) levels, serum ferritin, iron, zinc, angiotensin-converting enzyme, antinuclear antibodies, antineutrophil cytoplasmic antibodies, antidesmoglein antibodies, anti-tissue transglutaminase antibody, fungal culture, serology